PURDUE UNIVERSITY

PURDUE EXTENSION

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2006 Purdue Crop Cost & Return Guide

Table 2. Estimated per Farm Crop Budgets for Low, Average, and High Productivity Indiana Soils

Effect on Earnings for Each of Four Crop Rotations on Three Soil Types Using Similar Machinery and Labor When Farm Size Is Adjusted to Permit Timely Fieldwork[1]

	Low Productivity Soil				Average Productivity Soil				High Productivity Soil			
Farm Acres	900	1000	1200	1200	900	1000	1200	1200	900	1000	1200	1200
Rotation	c-c	c-b	c-b, c-w	c-b, c-w, dc	c-c	c-b	c-b, c-w	c-b, c-w, dc	c-c	c-b	c-b, c-w	c-b, c-w, dc
Crop contribution margin[2]	$34,200	$97,500	$117,400	$123,600	$53,100	$131,500	$152,200	$162,600	$81,000	$176,000	$198,600	$215,400
Government payment[3]	20,241	17,175	22,596	22,596	23,670	20,070	26,222	26,222	29,259	24,820	31,794	31,794
Total contribution margin	$54,441	$114,675	$139,996	$146,196	$76,770	$151,570	$178,422	$188,822	$110,259	$200,820	$230,394	$247,194
Annual overhead costs:												
Machinery replacement[4]	45,000	48,500	48,500	49,000	48,600	52,100	52,100	52,600	54,000	57,500	57,500	58,000
Drying/handling	6,300	6,300	6,300	6,300	7,200	7,200	7,200	7,200	8,100	8,100	8,100	8,100
Family and hired labor[5]	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Land[6]	$97,200	$108,000	$129,600	$129,600	$120,600	$134,000	$160,800	$160,800	$148,500	$165,000	$198,000	$198,000
Earnings or (losses)	-$133,059	-$87,125	-$83,404	-$77,704	-$138,630	-$80,730	-$80,678	-$70,778	-$139,341	-$68,780	-$72,206	-$55,906

[1]Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 acres rotation corn - 500 acres soybeans; c-b, c-w = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat; c-b, c-w, dc = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc).

[2]Crop's contribution margin is per acre contribution margin from Table 1 times number of acres.

[3]Government payment includes the direct payment and the counter cyclical payment. The per bushel direct payment rate is $0.28 for corn, $0.44 for soybeans, and $0.52 for wheat. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils. Direct payment yields for wheat were 45.8, 49.3, 55.5 on low, average, and high soils. The counter cyclical payments were based on a target price of $2.63 for corn, $5.80 for soybeans, and $3.92 for wheat. The average marketing year price assumed was $2.43 for corn, $6.07 for soybeans, and $3.72 for wheat. The counter cyclical yields for corn were 108.1, 133.4, and 164.1 for low, average, and high soils. The counter cyclical yields for soybeans were 36.2, 44.7, and 55.0 for low, average and high soils. The counter cyclical yields for wheat were 59.5, 66.7, 73.8 for low, average, and high soils. A base acre for each acre of crop raised was assumed.

[4]The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven-year trading policy assumed for combine and planter, 10-year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well-drained soils where more days are suitable for spring field work, machinery costs could be lower.

[5]Labor expenses include a family living withdrawal of $26,989 ($52,908 of family living expenses less $25,919 in net nonfarm income. Values are reported in *Farm Income & Production Costs for 2003*, University of Illinois Extension, AE-4566, April 2004), and the balance is used for part-time hired labor.

[6]Based on cash rent at $108 per acre on low-yield soil, $134 per acre on average-yield soil, and $165 per acre on high-yield soil.

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